ABSTRACT

An anode material capable of providing a high capacity and improving cycle characteristics and a manufacturing method thereof, and a battery are provided. The anode material has a reaction phase containing an element capable of generating an intermetallic compound with Li and C. In this reaction phase, a half value width of a diffraction peak by X-ray diffraction is preferably 0.5° or more. Further, in this anode material, it is preferable that a peak of C is obtained in a region lower than 284.5 eV by XPS. In the case that Sn is contained as an element capable of generating an intermetallic compound with Li, it is preferable that an energy difference between a peak of $3d_{5/2}$ orbit of Sn and a peak of 1s orbit of C is larger than 200.1 eV. It becomes thereby possible that cohesion or crystallization of the element capable of generating an intermetallic compound with Li associated with charge and discharge can be inhibited.